WEATHER OF NORTH AMERICA AND ADJACENT OCEANS.

NORTH ATLANTIC OCEAN.

By F. A. YOUNG.

The following figures show the average monthly pressure at 8 a. m., 75th meridian time, together with approximate departures, at a number of selected land stations on the coast and islands of the North Atlantic Ocean. The barometric readings are in inches and the normals were taken from the Pilot Charts.

St. Johns, Newfoundland, average, 30.04, departure, +0.04; Nantucket, 30.11, +0.06; Hatteras, 30.08, +0.04; Key West, 29.97, +0.02; New Orleans, 30.02, +0.04; Swan Island, 29.88, ±0.00; Turks Island, 30.02, +0.04; Bermuda, 30.09, +0.03; Horta, Azores, 30.25, +0.09; Lerwick, Shetland Islands, 29.69, −0.14; Valentia, Ireland, 29.99, ±0.00; London, 30.00, ±0.00.

At Horta the average pressure for the first 20 days was considerably higher than for the last decade of the month, the average barometric reading for the former period being 30.32 inches and for the latter 30.10 inches.

The number of days with winds of gale force was not far from the normal over the middle division of the steamer lanes. Stormy weather was more prevalent than usual between the 30th meridian and the European coast, and also in the western section of the ocean, due primarily to the tropical disturbance that occurred in the latter part of the month.

The number of days with fog was considerably above the normal over the Grand Banks and off the American coast, and fog was also observed more frequently than usual over the middle and eastern sections of the steamer lanes.

From the 3d to the 6th the Icelandic LOW was unusually active, and on the 4th moderate westerly gales prevailed over the region between the 50th and 60th parallels and the 20th and 35th meridians.

On the 4th and 5th a comparatively severe disturbance, though limited in area, appeared in the vicinity of the Bermudas. Storm log:

American S. S. *Evergreen City:*

Gale began on the 5th, wind ESE., 6. Lowest barometer 29.32 inches at 1:40 a. m. on the 5th, wind NE., 10, in latitude 36° N., longitude 61° W. End on the 6th, wind NW. Highest force of wind 10, NE.; shifts ESE–E–NE.

On the 6th, according to reports received, moderate weather was the rule over the western section of the ocean, while a few vessels east of the 30th meridian reported moderate gales.

On the 7th and 8th there was an area of low pressure, central near latitude 40°, longitude 60°, and a few vessels reported northerly to easterly gales; by the 9th it had moved slightly northward, and deepened considerably. Storm logs:

British cable S. S. *Faraday:*

Gale began on the 6th, wind NE. Lowest barometer, 29.82 inches at 5 a. m. on the 9th, wind NNE., 5, in latitude 40° 18′ N., longitude 63° 30′ W. End on the 9th, wind N. Highest force of wind 8, NE.; shifts not given.

American S. S. *Mount Evans:*

Gale began on the 8th, wind S. Lowest barometer 29.57 inches at midnight on the 8th, wind S., 10, in latitude 39° 30′ N., longitude 56° 40′ W. End on the 9th. Highest force of wind 10; shifts S–SW.

On the 9th westerly gales also prevailed off the north coast of Scotland, although, according to reports received, they were not very severe.

At the time of the Greenwich mean noon observation on the 12th, moderate conditions apparently prevailed over the entire ocean. Later in the day, however, a severe storm of short duration appeared, as shown by the following storm logs.

American S. S. *Emergency Aid:*

Gale began on the 11th, wind SE. Lowest barometer 29.45 inches at 2 p. m. on the 12th, wind SW., 11, in latitude 36° N., longitude 64° 40′ W. End on the 12th, wind W. Highest force of wind 11, SW.; shifts SE. to WSW.

American S. S. *City of St. Joseph:*

Gale began on the 12th, wind ESE. Lowest barometer 29.11 inches at 6 p. m. on the 12, wind NW., 12, in latitude 42° 04′ N., longitude 61° 43′ W. End on the 12th, wind NW. Highest force of wind 12, NW.; shifts ESE.–NW.

A waterspout was seen on the 12th. Report follows.

British S. S. *Nessian:*

On Wednesday, September 12 at 1:55 p. m. L. M. T., in latitude 25° 34′ N., longitude 76° 40′ W., two waterspouts very close together, one about 500 feet high and the other about 80 feet. They both retained their altitude for seven minutes and then collapsed.

On the 14th and 15th the waters adjacent to the west coast of Scotland were visited by a severe disturbance. Storm log:

Danish S. S. *United States:*

Gale began on the 14th, wind N. Lowest barometer 29.21 inches at 3 p. m. on the 15th, wind NNE., 8, in latitude 58° 27′ N., longitude 6° 55′ W. End on the 15th, wind NNE. Highest force of wind 10, N.; shifts N.–NNE.

On the evening of the 16th the British S. S. *Almagro,* when a short distance east of Charleston, S. C., encountered a moderate easterly gale that afterwards increased in intensity. Her storm log is as follows:

Gale began on the 16th, wind SE. Lowest barometer 30.09 inches at midnight on the 16th, wind SE., in latitude 27° 53′ N., longitude 79° 32′ W. End on the 17th, wind NNE. Highest force of wind 10. The wind backed from SE. to NNE. with barometer rising from beginning to end of storm.

This disturbance was apparently of very limited extent and short duration, and comparatively high barometric readings were recorded in the vicinity at the time of observation on the 16 and 17th.

On the 17th the center of a deep depression was near the northwest coast of Scotland and strong gales prevailed over the territory between the 45th and 60th parallels, east of the 30th meridian. This LOW moved slowly eastward during the next 24 hours and by the 18th the center was near Aberdeen, Scotland, while the storm area had contracted in extent and the wind decreased in force. Storm logs:

German S. S. *Westphalia:*

Gale began on the 16th, wind SW. Lowest barometer 29.51 inches at 5 a. m. on the 17th, wind NW., 11, in latitude 49° 52′ N., longitude 17° 09′ W. End on the 17th, wind WNW. Highest force of wind 11, NW.; shifts W.–NW.–WNW.

British S. S. *Saxonia:*

Gale began on the 16th, wind W. Lowest barometer 29.90 inches at 4 a. m. on the 17th, wind NNW., in latitude 49° 06′ N., longitude 25° 39′ W. End on the 18th, wind NW. Highest force of wind 9, NW.; shifts NNW.–NW.

On the 19th a fairly well developed LOW was central near latitude 45°, longitude 45°. This apparently moved rapidly northward, as it did not appear within the limits of the map on the 20th.

From the 21st to the 26th moderate to strong gales prevailed over the eastern section of the steamer lanes,

the storm area expanding and contracting from day to day. On the 24th a second LOW was central near latitude 53°, longitude 47°, and the two storm areas practically met in mid-ocean.

Dutch S. S. *Newyork:*

Gale began on the 22d, wind W. Lowest barometer 29.54 inches at 6 p. m. on the 23d, wind W., in latitude 50° N., longitude 20° 13′ W. End on the 24th, wind W. Highest force of wind 8; shifts S.-SW.-W.

British S. S. *Parthenia:*

Gale began on the 24th, wind WSW. Lowest barometer 29.20 inches at 10:30 a. m. on the 24th, wind W., 10, in latitude 52° 27′ N., longitude 47° 58′ W. End on the 25th, wind NNW. Highest force of wind 11; shifts WSW.-NW.-NNW.

British S. S. *Samaria:*

Gale began on the 24th, wind S. Lowest barometer 28.97 inches on the 24th, wind W., 10, in latitude 51° 05′ N., longitude 17° 11′ W. End on the 25th, wind W. Highest force of wind 10; shifts WSW.-W.

Charts VIII to XII show the daily conditions prevailing from the 26th to the 30th, inclusive. It was during this period that the tropical disturbance, previously referred to, prevailed. A report of this hurricane will be found elsewhere in the REVIEW, but several gale reports from vessels involved are given herewith:

American S. S. *Hera:*

Gale began on the 26th, wind SSE. Lowest barometer 29.34 inches at 10 a. m. on the 26th, wind SSE., 5, in latitude 28° 30′ N., longitude 71° 45′ W. End on the 27th, wind S. Highest force of wind 10, SSW.; shifts SSE.-S.

American S. S. *Currier:*

Gale began on the 26th, wind ENE., 7. Lowest barometer 29.56 inches at 9 a. m. on the 27th, wind NE., in latitude 29° 35′ N., longitude 76° 50′ W. End at 4 p. m. on the 27th, wind NNW. Highest force of wind 10, ENE.; shifts NE. by E.-NE.

British S. S. *Eastern Prince:*

Gale began on the 27th, wind ESE. Lowest barometer 29.46 inches at noon on the 29th, wind N., 10, in latitude 32° 39′ N., longitude 75° 16′ W. End on the 30th, wind SW. Highest force of wind 10, N.; shifts NNE.-N.-NNW.

American S. S. *Afel:*

Gale began on the 28th, wind SSE. Lowest barometer 29.58 inches at 4 p. m. on the 29th, wind SW., in latitude 27° 34′ N., longitude 73° 10′ W. End at 8 a. m. on the 30th, wind NW. Highest force of wind 10; shifts SW.-NW.

British S. S. *Maraval:*

Gale began on the 29th, wind ESE. Lowest barometer 28.98 inches on the 30th, wind ESE., in latitude 34° 49′ N., longitude 70° 39′ W. End on the 30th, wind NW. Highest force of wind 12, NE.; shift 10 points.

NORTH PACIFIC OCEAN.

By WILLIS E. HURD.

Over a substantial area of the North Pacific Ocean there was no material change in September from the good weather of the preceding month. Over the most frequented northern routes, however, the advent of autumn was manifested in the increased activity of the Aleutian LOW, which resulted in squalls and storm winds of much greater frequency and severity than in August.

For the month as a whole pressure averaged below normal over the eastern part of the ocean, the greatest relative departure occurring at Midway Island. Here the pressure for the month, based on p. m. observations, was 29.93 inches, as compared with the normal of 30.01, or a deficiency of 0.08 inch. The average departure from normal at Midway Island in the month of September for the past 12 years has been 0.04 inch. The highest pressure, 30.08, occurred on the 3d and 31st; the lowest, 29.94, on the 17th. The average pressure at Dutch Harbor, based upon p. m. observations, was 29.68 inches. The normal here for September is 29.75. The highest pressure, 30.54, occurred on the 17th; the lowest 28.54, on the 27th. Absolute range, 2 inches. There were five days in which a. m. or p. m. pressures were below 29 inches. It will be noted that the range in pressure between Midway Island and Dutch Harbor on the p. m. of the 17th was 1.34 inches. At Honolulu the average p. m. pressure was 29.97, or 0.01 below normal. The highest pressure, 30.18, occurred on the 18th; the lowest, 29.82, on the 20th.

About the 18th of the month the northern portion of Bering Sea was swept by severe gales, and several schooners bound for Nome were reported greatly in danger. The p. m. observation at Nome on the 18th showed a pressure of 29.76 inches and a south wind, force 7. Pressure there continued low for several subsequent days.

Along the routes between the Hawaiian Islands and the American mainland the weather was generally good. The North Pacific high-pressure area maintained a fair-to-good development throughout most of the month. Its center for many days was near 45° north latitude, 150° west longitude, thus giving prevailing winds from the east at Honolulu.

On the 16th pressure began falling at Midway Island, and reached its minimum there on the 17th. The p. m. observation of the 17th showed the wind to be of force 6 from the west, pressure 29.24. During these dates a storm was in the vicinity, but it was reported by only one vessel, the American S. S. *Dickenson*, Capt. George Peltz, Midway toward Honolulu. On the 17th this steamer recorded a south wind, force 4, pressure 29.64, in latitude 26° 40′ N., longitude 173° 20′ W.; and on the 18th a south by west wind, force 8, pressure 29.81 inches, in 26° 10′ N., 170° 20′ W. The storm apparently moved northward from Midway, although the subsequent drop in pressure at Honolulu on the 20th might be taken as an indication that the cyclone had spread eastward, diminishing in intensity and vanishing in low latitudes. At Honolulu on the 21st the remarkable phenomenon of thunder was heard in consequence of the unsettled conditions. This is the fourth time in which thunder has been heard in September at this station since its establishment in 1904.

Conditions were generally quiet along the tropical west coast of North America. Vessel reports thus far received indicate no disturbance at sea in the vicinity. A newspaper report, however, tells of a storm which damaged Acapulco, Mexico, on the 23d. There is no indication of this on the weather map.

In the Far East at least two tropical cyclones of great intensity occurred in September. Lack of complete information from the Philippine Islands and of the regular daily observations from Japan, both of which contribute greatly to our knowledge of conditions in this quarter, render it impossible at this writing to announce more than this number, or further regarding the movements of these storms.

During the earthquake which so vitally damaged certain sections of Japan on September 1, it was reported that the horrors of the catastrophe at Yokohama were intensified by the presence of a typhoon. It is true that the remnants of a tropical storm, which had been hovering over the southern portion of the archipelago for two or three days, were still existent. Heavy rain occurred at Yokohama during the early morning, and the winds were moderate to fresh southerly during most of the day,